**Additional Practice Problems - Unit 1 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\*\*\* Complete the following questions on a piece of notebook paper. You will need to show the completed problems to me before I allow you to retake the quiz!**

**Quiz #1 – Lab Safety** \*\*\* Read through Lab Safety Rules in packet and on pages R80-81 in your book.

**Quiz #2 – Types of Matter**

1. Define:
   1. Element
   2. Compound
   3. Mixture
   4. Solution
2. Explain the difference between a homogeneous and a heterogeneous mixture.
3. Give an example of each type in #2.
4. Study the matter flow chart!

**Quiz #3 – Physical vs. Chemical Changes**

1. Which change alters the appearance of a substance without changing the chemical makeup of the substance?
2. Which change results in the formation of an entirely new substance?
3. Name the 4 indicators of a chemical change.
4. Are phase/state changes (melting, boiling, freezing, subliming) physical or chemical changes?
5. Identify the following as physical or chemical changes:
   1. Carving a piece of wood e. Melting wax
   2. Burning paper f. Frying eggs
   3. Water boiling g. Silver tarnishing/corroding
   4. Baking cookies h. Shattering a window

**Quiz #4 – Metric System & Dimensional Analysis**

1. 8.340 m = \_\_\_\_\_ mm
2. 0.0239 km = \_\_\_\_\_ cm
3. 1.576 dg = \_\_\_\_\_ g
4. 3.89 ounces = \_\_\_\_\_ kg (1 kg = 2.2 lb, 1 lb = 16 oz)
5. How much would it cost to drive 85 miles if the cost of gas is $3.65 per gallon and your car gets 35 mi/gal?

**Quiz #5 – Significant Figures & Scientific Notation**

1. How many significant figures does 76000 have? 0.00810?
2. Write 58200. in scientific notation with correct sig figs. Do the same for 0.00004120.
3. Round 239847 to three significant figures.
4. Calculate the following with correct sig figs: 932.1 + 43.5 = \_\_\_\_\_ 20.1 x 81.23 = \_\_\_\_\_.
5. Which number has more sig figs? 870 or 807? 5.4 x 1023 or 5.4

**Quiz #6 – Elements** \*\*\* Study your flash cards to memorize element names and symbols.

**Quiz #7 – Density**

1. Calculate the density of ethyl alcohol if its mass is 600.0 g and it fills a 200.0 mL container.
2. Calculate the mass of gold if its density is 19.3 g/cm3 and its volume is 50.0 cm3.
3. Calculate the volume of 89.0 g of iron, which has a density of 1.34 g/mL.